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COOK, ALEX, MCFARRON, MANZO, CUMMINGS & MEHLER LTD  
SUITE 2850  
200 WEST ADAMS STREET  
CHICAGO, IL 60606

EXAMINER
PAULRAJ, CHRISTOPHER
ART UNIT
PAPER NUMBER

1773

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/785,955

Applicant(s)

WICHER ET AL.

Examiner

Christopher G. Paulraj

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Note: The original claims contained two claims that were numbered "9". The second claim 9 has been renumbered as claim "10" subsequent claim numbers have been changed accordingly (original claim 10 has been changed to 11, original 11 to 12, and so forth). Claims 1-20 are pending in the application.

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-11 and 15-20, drawn to a support material, classified in class 428, subclass 323.
  - II. Claims 12-14, drawn to a process for the manufacture, classified in class 427, subclass 1+.
2. The inventions are distinct, each from the other because of the following reasons:
3. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made with a lamination technique without extrusion at a speed of up to 600 m/min.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Daniel Riese on August 21, 2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-11 and 15-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-14 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-11 and 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. The transitional phrases "containing" and "contains" in claims 1, 3, 6, 10, 15, and 17 render the claims indefinite because they do not clearly indicate what the intended scope of the claims are with respect to what unrecited additional components or steps, if any, are excluded from the scope of the claim. The transitional phrase "containing" does not have an accepted meaning and applicants have failed to clearly indicate what the intended scope of the claims are. See MPEP 2111.03

10. Claims 1, 3, 4, 5, 8, 9, 10, 11, 15, 17, and 18 are indefinite for reciting the phrases "less than about," "at least about," and "a maximum of about." The claims recite an upper or lower limit for the claimed ranges. However, these limits are not clearly specified with the inclusion of the modifier "about." Consequently, one skilled in the art would not be able to determine what the upper and lower limits of the claimed invention are in order to determine if infringement occurs.

11. The preamble to claims 1 and 6 recite a "Support material coated on at least one side with a synthetic resin, containing a raw paper provided on at least the front side with a synthetic resin . . . ." However, the body of the claims do not recite that the pigment coating comprises any type of resin component. Consequently, it is unclear whether or not a resin component is required in the coating.

12. The phrase "narrow grain distribution" is indefinite because one skilled in the art would not be able to determine exactly what constitutes "narrow."

13. Claims 1 and 15 require that at least about 70% of these pigment particles feature a size of less than about 1  $\mu\text{m}$ . However, the claims do not indicate what type of percentage is being referred to (e.g. weight, volume, number, etc.) The claims also do not indicate what the percentage is based on.

14. Claim 5 is indefinite because it fails to indicate what qualifies as a "slightly compressed paper."

15. Claims 6 and 19 fail to clearly indicate what qualifies as a "structured" calcium carbonate. Claim 7 and 20 fail to clearly indicate exactly how the surface of the calcium carbonate is modified by an inorganic substance in platelet shape. This renders the claims indefinite.

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16. Claims 8 and 9 require that the proportion of the pigment in the total amount of pigment amount to at least 5% by weight. This recitation is unclear because the claims do not specify exactly what type of pigment in the total amount of pigments amounts to at least 5% by weight.

***Claim Rejections - 35 USC § 102/103***

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 1-2, 4, 6-9, 11, 15-16, and 18-20 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Haskins et al. (U.S. Patent 5,861,209).

Haskins et al. discloses a paper coated with a precipitated calcium carbonate (PCC) coating pigment composition in which the pigment has a particle size distribution such that 0 % to 25 % of the particles have a diameter of less than 0.4  $\mu\text{m}$ , from about 40% to 60% of the particles have a diameter of from about 0.4  $\mu\text{m}$  to 1.0  $\mu\text{m}$ , from about 10 % to about 35 % of the particles have a diameter of about 1  $\mu\text{m}$  to about 3  $\mu\text{m}$ , and from 0 % to about 20

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% of the particles have a diameter of 3  $\mu\text{m}$  to 10  $\mu\text{m}$  (col. 10, lines 3-13). The coating may be applied at an amount of 6  $\text{g/m}^2$  (col. 9, lines 63-64). The surface of the calcium carbonate is considered to be modified when it is mixed with other inorganic substances such as titanium oxide, talc, calcined clay, etc. (col. 4, lines 66-67). While the exact particle size distribution ranges specified in the instant claims are not disclosed, the ranges disclosed by Haskins et al. overlap with the claim requirements and are therefore considered to anticipate the instant claims. Alternatively, if the claims are not anticipated, one skilled in the art would have found it obvious to adjust the particle size distribution of the pigments disclosed in Haskins et al. to meet the claim requirements. The motivation for doing so would have been to optimize the "missing dot performance" of the coating (see col. 1, lines 15-17).

20. Claims 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Husband (U.S. Patent 5,731,034).

Husband discloses a paper coating composition which comprises a calcium carbonate pigment present in an amount of at least 5% by weight of the total amount of pigments (see abstract). The coating composition can also include additional inorganic substances with a plate-like structure such as kaolin clay (col. 2, lines 17-20). These inorganic substances are considered to modify the surface of the calcium carbonate particles. The calcium carbonate is considered to amount to at least 5% by weight of the total pigments.

21. Claims 1-11, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Husband.

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Husband discloses the desirability of a narrow particle size distribution but does not specifically disclose the ranges recited in the instant claims. In the absence of establishing criticality/unexpected results, one skilled in the art would have found it obvious to adjust the size distribution to within the claimed range. The motivation for doing so would have been to optimize the rheological properties of the coating composition (see col. 1, lines 18-20). In the absence of establishing criticality/unexpected results, one skilled in the art would also have found it obvious to select a paper that has a density of less than about  $1 \text{ g/cm}^3$  and apply the coating in an amount of less than  $20 \text{ g/m}^2$ . The motivation for doing so would have been to form a lightweight coated product. One skilled in the art would also have found it obvious to adjust the amount of kaolin clay to above 30 weight %. The motivation for doing so would have been to optimize the rheological properties.

22. Claims 1, 3, 15, and 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Forbus et al. (U.S. Patent 5,624,488).

Forbus et al. discloses a calcined clay pigment used to coat papers which can comprise a particle size distribution which overlaps with the claim requirements and therefore considered to anticipate the instant claims (see the particle size distributions disclosed in Tables I, IV). Alternatively, if the claims are not anticipated, one skilled in the art would have found it obvious to adjust the particle size distribution of the pigments disclosed in Forbus et al. to meet the claim requirements. The motivation for doing so would have been to optimize the abrasion and brightness properties (see abstract).

***Information Disclosure Statement***



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23. Receipt of Information Disclosure Statement filed on August 14, 2001 is acknowledged and has been made of record. Foreign language documents were only considered to the extent of what their English abstracts provided.


***Conclusion***

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher G. Paulraj whose telephone number is (703) 308-1036. The examiner can normally be reached on Monday-Friday, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (703) 308-1261. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0661.

cgp  
September 9, 2002

  
Paul Thibodeau  
Supervisory Patent Examiner  
Technology Center 1700